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10/803,407	03/17/2004	Mikio Shiraishi	16869N-110100US	5560

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EXAMINER

BLACKMAN, ROCHELLE ANN J

ART UNIT PAPER NUMBER

2851

DATE MAILED: 12/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/803,407

Applicant(s)

SHIRAISHI, MIKIO

Examiner

Rochelle Blackman

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03/17/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 03/17/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "light valve" and "second cooling fan" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "501" of FIG. 7A, on pg. 20, line 13. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: there is insufficient antecedent basis for the claimed subject matter, "a second cooling fan" and "a second cooling air path", in the specification.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-3, 5, 8, 10, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Asakawa et al. (U.S. Patent No. 6,072,458).

Asakawa discloses a projection type display device (FIGS. 1-24), comprising: a light source unit (1); a first cooling fan (19) which cools said light source unit; a light valve (12-14) which modulates a flux of light emanated from said light source unit; a second cooling fan (20, 40) which cools said light valve; and a projection lens (18) which projects light modulated by said light valve; wherein a first cooling air path produced by said first cooling fan and a second cooling air path produced by said second cooling fan are formed substantially independently of each other (see arrows in FIG. 14 and 15) and a blowing direction of a first cooling air generated by said first cooling fan is selectively varied (see col. 14, lines 45-50); further comprising a duct (see location of 1 in FIGS. 14-16) which has said light source unit disposed therein, said duct forming said first cooling air path; wherein the blowing direction of said first cooling air is selectively varied by changing a direction of rotation of said first cooling fan between forward and backward (see arrows in FIG. 14 and col. 14, lines 45-50); wherein said first cooling fan is provided at substantially a center portion of a casing of said projection type display device (see location of 19 in FIGS. 14-16).

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2. Claims 1, 2, 5, 6, 10, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Fuse et al. (U.S. Patent No. 6,280,038).

Fuse discloses a projection type display device (see FIGS. 1-8), comprising: a light source unit (1); a first cooling fan (50) which cools said light source unit; a light valve (14, 18, 21) which modulates a flux of light emanated from said light source unit; a second cooling fan (61) which cools said light valve; and a projection lens (27) which projects light modulated by said light valve; wherein a first cooling air path produced by said first cooling fan and a second cooling air path produced by said second cooling fan are formed substantially independently of each other (see arrows in FIG. 8) and a blowing direction of a first cooling air generated by said first cooling fan is selectively varied (see col. 8, lines 13-17 – removing 50 and moving it to another place is considered to be varying the blowing direction of the cooling air); further comprising a duct (see location of 1) which has said light source unit disposed therein, said duct forming said first cooling air path; wherein said first cooling fan is provided at substantially a center portion of a casing of said projection type display device (see location of 50 in FIG. 8); wherein a plurality of cooling fan removal locations (the plurality of cooling fan removal locations is considered to be the location of 50 in FIG. 8 and the *another place* in col. 8, lines 13-17) are provided in said first cooling air path and the blowing direction said first cooling air is selectively varied by selecting a specific cooling fan removal location and mounting therein said first cooling fan.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 4, 9, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuse et al. (U.S. Patent No. 6,280,038) in view of Takahashi (JP Patent No. 2001-185884).

Fuse discloses the claimed invention except for the blowing direction of said first cooling air selectively being varied by "rotating said cooling fan".

Takahashi teaches providing a blowing direction of a first cooling air is selectively is varied by rotating a cooling fan (see 4 in Drawing 1 and see abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to vary the blowing direction of the first cooling fan of the "projection type display device" of the Fuse reference by "rotating" the first cooling fan, as taught by Takahashi, in order to discharge the heat produced inside the "projection type display device" through more than one vent or opening of the "projection type display device", thus facilitating the regulation of the temperature of the "light source unit".

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2. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fuse et al. (U.S. Patent No. 6,280,038) in view of Asakawa et al. (U.S. Patent No. 6,072,458).

Fuse disclose the claimed invention except for wherein said first cooling fan is mounted so that said first cooling air is blown "against thereby cool, said light source unit".

Asakawa teaches providing a first cooling fan (19) mounted so that a first cooling air is blown against thereby cool, a light source unit (1).

It would have been obvious to one ordinary skill in the art at the time the invention was made to mount the "first cooling fan" in the "projection type display device" of the Fuse reference, as in the Asakawa reference, in order to further regulate the temperature of the light source unit, thus minimizing unnecessary fluctuation in the brightness, contrast and tint of the projected image (see col. 2, lines 13-16).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rochelle Blackman whose telephone number is (571) 272-2113. The examiner can normally be reached on M-F 8:00-4:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RB

  
JUDY NGUYEN  
PRIMARY EXAMINER